

## **IN THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

### **Listing of Claims:**

Claims 1 – 22 (Withdrawn).

Claim 23 (Currently amended): A communication arrangement for communicating a data signal using a cable television transmission medium in a cable television (CATV) system, the communication arrangement comprising:

a 1:N rate encoder, coupled to an input data stream and configured to reproduce a symbol or FEC block represented by a segment of the input data stream N times;

a transmission arrangement configured to use a plurality of outputs to transmit each reproduced symbol or FEC block using Data-Over-Cable signaling over a distinct transmission channel of said cable transmission medium; and

a receiver, coupled to the outputs of the transmission arrangement and configured to perform joint equalization and soft-combining of signals received from the outputs of the transmission arrangement and to output an estimate of the symbol or FEC block.

Claim 24 (Original): A communication arrangement, according to claim 23, wherein the soft-combining comprises at least one of mean squared error estimation, identification of burst noise within a data packet, weighted combining, and selective combining.

Claim 25 (Original): A communication arrangement, according to claim 23, wherein one of the transmission channels is used to transmit an original message and the remaining transmission channels are used to perform retransmission.

Claim 26 (Original): A communication arrangement, according to claim 23, wherein a plurality of information bits are used to represent a symbol to be transmitted, and wherein the transmission channels are used to transmit the information bits using a delay-encoded mapping scheme.

Claim 27 (Currently amended): A communication method for communicating a data signal using a cable television transmission medium by applying diversity techniques in a cable television (CATV) system, the communication method comprising:

reproducing a symbol or FEC block represented by a segment of an input data stream a preselected number of times;

using a plurality of transmission channels to transmit each reproduced symbol or FEC block using Data-Over-Cable signaling over a distinct transmission channel of said cable transmission medium; and

performing joint equalization and soft-combining of signals received from the transmission channels.

Claim 28 (Original): A communication method, according to claim 27, wherein the soft-combining comprises at least one of mean squared error estimation, identification of burst noise within a data packet, weighted combining, and selective combining.

Claim 29 (Original): A communication method, according to claim 27, further comprising:

transmitting an original message using one of the transmission channels; and  
performing retransmission using the remaining transmission channels.

Claim 30 (Original): A communication method, according to claim 27, further comprising:

using a plurality of information bits to represent a symbol to be transmitted; and

using the transmission channels to transmit the information bits using a delay-encoded mapping scheme.